

STATE OF NEW HAMPSHIRE
DEPARTMENT OF ENVIRONMENTAL SERVICES
AIR RESOURCES DIVISION
CONCORD, NEW HAMPSHIRE

**NOTICE OF TEMPORARY PERMIT AND PREVENTION OF SIGNIFICANT
DETERIORATION (PSD) PERMIT REVIEW, PUBLIC HEARING, AND COMMENT
PERIOD**

Pursuant to the New Hampshire Code of Administrative Rules, Env-A 621, 40 C.F.R. 52.21(q), and 40 C.F.R. 124, notice is hereby given that the Director of the New Hampshire Department of Environmental Services, Air Resources Division (Director), has received an application to modify an existing Temporary Permit and PSD Permit from, and based on the information received to date, intends to issue such [Temporary Permit and PSD Permit](#) modification to:

NEL/Consolidated Edison Development
Newington Energy, L.L.C. (Newington Energy)
200 Shattuck Way
Newington, N.H. 03801

For a:

595 Megawatt Combustion Turbine Facility

The purpose of this permit is to incorporate permit modifications requested by Newington Energy as well as modifications required by the Department in the original Temporary Permit/PSD Permit issued on April 26, 1999. The requested modifications include:

1. An increase in the amount of low sulfur distillate fuel oil that can be combusted in Combustion Turbines #1 and #2, from 19,850,000 gallons to 33,120,000 gallons during any 12-consecutive month period.
2. Incorporation of permit conditions related to the periods of startup, shutdown, and fuel transition at this facility.
3. Corrections to the maximum emission rates listed in the original Temporary Permit/PSD Permit.
4. Request for a less frequent reporting period for ammonia usage, from a monthly to a quarterly basis.
5. Replacement of eight natural gas-fired Fuel Gas Heaters with six new natural gas-fired Fuel Gas Heaters.
6. Incorporation of the applicable standards, recordkeeping, and reporting requirements of the Code of Federal Regulations (CFR) 40 Part 60, Subpart Db, *Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units* for the heat recovery steam generating units for Combustion Turbines #1 and #2.

In addition to the above modifications, this permit will combine and replace two existing permits: the original Temporary Permit/PSD Permit (DES Temporary Permit FP-T-0036, EPA PSD Permit 044-121NH10) issued April 26, 1999, and Temporary Permit TP-B-0483, which

was issued December 4, 2001 for one natural gas-fired Auxiliary Boiler, eight natural gas-fired Fuel Gas Heaters, a diesel-fired Emergency Generator, and a diesel-fired Emergency Firewater Pump.

Table 1 below summarizes the net emissions increases/decreases resulting from the increase in fuel oil firing in Combustion Turbines #1 and #2 and the replacement of the existing Fuel Gas Heaters.

Table 1: Prevention of Significant Deterioration (PSD) and Non-Attainment (NA) Applicability Thresholds (All Values in Tons Per Year)						
Pollutant						
	Nitrogen Oxides (NO_x)	Carbon Monoxide (CO)	Total Particulate Matter (PM)/ Particulate Matter Less than 10 Microns (PM-10)	Volatile Organic Compounds (VOC)	Sulfur Dioxide (SO₂)	Sulfuric Acid Mist (H₂SO₄)
Baseline Annual Emission Rate from All Devices at Facility Combined	211.1	489.6	105.5	36.9	126.5	20.9
Emissions Increase/(Decrease) due to Increase in Fuel Oil Firing for Combustion Turbines #1 and #2	18.9	41.9	2.4	2.2	39.3	6.7
Emissions Increase/(Decrease) due to Replacement of Eight Existing Fuel Gas Heaters with Six New Fuel Gas Heaters	(-0.5)	(-1.8)	(-0.1)	(-0.1)	0.1	0.0
Net Emissions Increases Due to Above Modifications (sum of two above rows)	18.4	40.1	2.3	2.1	39.4	6.7
PSD/Non-Attainment Significant Modification Thresholds (compare to row above)	40 (PSD) 25 (NA)	100	25/15	25	40	7
PSD/ Non-Attainment Significant Modification Threshold Levels Exceeded? (Y/N)	N	N	N	N	N	N

As shown in Table 1, no significant net emissions increases will result from the proposed modifications, and under most circumstances federal PSD or Non-Attainment review program requirements are not triggered. However, USEPA policy requires a new PSD or Non-Attainment review if any existing Best Available Control Technology (BACT) or Lowest Achievable Emission Rate (LAER) limit is proposed for modification. Since the applicant has requested a change in a BACT limit for fuel oil firing, all BACT limits related to fuel oil firing were reevaluated and the determination of BACT, including the type of equipment, and the prescribed pollutant emission limitations are set forth in Table 2 below (for completeness, all oil and natural gas firing limits are listed).

Table 2: Summary of Proposed BACT/LAER Limitations (All Fuels)			
Pollutant	Limitation	Technology BACT/LAER	Averaging Time
Nitrogen Oxides (Gas Firing)	2.5 ppmdv @ 15 % O2	Low NOx Burner with SCR LAER	3 hour block average
Nitrogen Oxides (Oil Firing)	9.0 ppmdv @ 15 % O2	Low NOx Burner with Water Injection and SCR LAER	1 hour block average
Sulfur Dioxide (Gas Firing)	0.0036 lb/MM BTU	Low Sulfur Fuels BACT	3 hour rolling
Sulfur Dioxide (Oil Firing)	0.0505 lb/MM BTU	Limit of 33,120,000 Gallons of Low Sulfur Oil per consecutive 12-month period BACT	3 hour rolling
Carbon Monoxide (Gas Firing) @ All Loads	15 ppmdv @ 15 % O2	Low NOx Burner with Good Combustion Practices BACT	1 hour block average
Carbon Monoxide (Oil Firing) @ 75 to 100 % Load	20 ppmdv @ 15 % O2	Low NOx Burner with Good Combustion Practices BACT	1 hour block average
Carbon Monoxide (Oil Firing) @ 50 to 75 % Load	30 ppmdv @ 15 % O2	Low NOx Burner with Good Combustion Practices BACT	1 hour block average
TSP/PM10 (Gas Firing)	0.015 lb/MM BTU	Low Sulfur Fuels BACT	1 hour block average
TSP/PM10 (Oil Firing)	0.040 lb/MM BTU	Low Sulfur Fuels BACT	1 hour block average
Sulfuric Acid Mist (H2SO4)	19.00 lb/hr	Low Sulfur Fuels BACT	1 hour block average

An ambient air quality impact analysis has determined that the facility's air emissions will not cause a significant impact on air quality and does not violate any state or federal air quality standards, nor exceed any PSD increments. Details regarding the amount of increment consumption are contained in the [Preliminary Determination](#).

Newington Energy is required to obtain NOx emission offsets in the ratio of 1.2:1, or approximately 269 tons, 23 tons of which are required based on this permit modification. These offsets will be obtained in accordance with the New Hampshire Code of Administrative Rules, Env-A 3200: NOx Budget Program.

All information, to the extent permitted by N.H. RSA 91-A and RSA 125-C:6, VII, submitted by the applicant; the Department's analysis of the effect of the proposed facility on air quality; the Preliminary Determination; and all other materials, if any, considered in making the Preliminary Determination are available for inspection with the Director, New Hampshire

Department of Environmental Services, Air Resources Division, located at 29 Hazen Drive, P.O. Box 95, Concord, N.H. 03302-0095, (603) 271-1370. Information may be reviewed at the Department's office during working hours from 8 a.m. to 4 p.m., Monday through Friday. The draft permit and Preliminary Determination are available for download on the Department's web site at http://des.nh.gov/ard_intro.htm. Additional information may also be obtained by contacting **Gary Milbury, Jr.** at the above address and phone number. The application, draft permit, and Preliminary Determination are also available for review at the Newington Town Hall, 205 Nimble Hill Road, Newington, N.H. during the hours of 10 a.m. to 3 p.m., Tuesday through Thursday.

Requests for a public hearing and/or written comments filed with the Director in accordance with Env-A 621.06 and received no later than **Thursday, October 26, 2006**, shall be considered by the Director in making a final decision.

Robert R. Scott
Director
Air Resources Division

Dated: September 25, 2006